

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
16 December 2004 (16.12.2004)

PCT

(10) International Publication Number
WO 2004/108594 A1

(51) International Patent Classification⁷: **C01B 33/12**

Nam-ku, Pohang-city, Kyung-sangbuk-do, 790-390 (KR).
CHUN, Myong-Cheul [KR/KR]; 7-602, Kyosu Apt.,
Jigok-dong, Nam-ku, Pohang-city, Kyung-sangbuk-do
790-751 (KR).

(21) International Application Number:
PCT/KR2004/001380

(22) International Filing Date: 10 June 2004 (10.06.2004)

(74) Agent: **YOU ME PATENT & LAW FIRM**; Seolim Bldg.,
649-10 Yoksam-dong, Kangnam-Ku, Seoul 135-080 (KR).

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2003-0037634 11 June 2003 (11.06.2003) KR

(71) Applicant (for all designated States except US): **Research
Institute of Industrial Science & Technology** [KR/KR];
San 32, Hyoja-dong, Nam-ku, Pohang-city 790-330 (KR).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

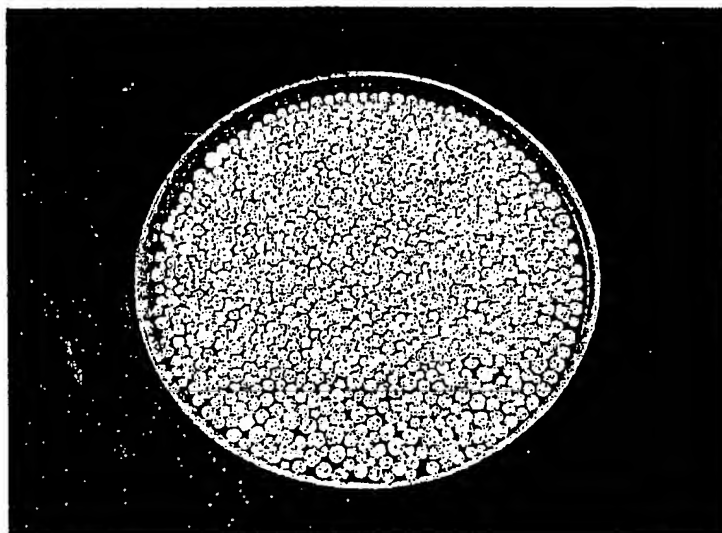
(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Sun-Uk**
[KR/KR]; 9-101, Kyosu Apt., Jigok-dong, Nam-ku, Po-
hang-city, Kyung-sangbuk-do 790-752 (KR). **HWANG,**
Soon-Cheol [KR/KR]; 304-206, Green Villa., Jigok-dong,

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: A METHOD FOR FABRICATING A POROUS SILICA SPHERE



(57) Abstract: The present invention relates to a method for the fabrication of a porous silica sphere, wherein silica gel is treated with heat for a designated time by increasing its temperature at the speed of 90 °C per minute up to 1050 to 1200 °C to fabricate a porous silica sphere. The present invention can fabricate a porous silica sphere that has a homogeneous structure and pore size at a low cost, using commercial silica gel that is sold for various purposes such as food preservation and humidity control, as a raw material.

WO 2004/108594 A1

BEST AVAILABLE COPY



FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*